REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, the claims have been amended for clarity.

The Examiner has rejected claims 1-3, 5-7, 9-14, 16-19 and 21-24 under 35 U.S.C. 103(a) as being unpatentable over European Patent Application No. EP 0996124 A1 to Ono et al. in view of U.S. Patent 5,790,489 to O'Connor. The Examiner has further rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Ono et al. in view of O'Connor, and further in view of U.S. Patent 5,327,213 to Blake et al.

The Ono et al. patent discloses an optical disk and recording/reproduction apparatus using the same, in which a semiconductor IC chip is incorporated in the optical disk and includes a memory for storing certain control information. The IC chip further includes receiver means for receiving power in the form of a signal to be supplied to the circuitry of the IC chip, and transmitter-receiver means for the communication of control information between the optical disk, i.e., the IC chip, and the recording/reproducing apparatus.

The O'Connor patent discloses a smart compact disk including a processor and a transmission element in which a compact disk has a processor having a photosensitive array which, when illuminated by a laser in a compact disk read head, generates a

current used to energize a transmission element optically coupled to the compact disk reader for transmitting a stored information signal.

The subject invention also relates to an optical disk having a integrated circuit incorporated therein. In addition, the subject invention, as claimed in claim 1, further includes the limitation "means for generating a first communication channel operating at a first frequency" and "means for generating, simultaneously with said first communication channel, a second communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency".

As described in the specification on page 2, line 26 to page 3, line 4, "the communication signals [on the first and second communication channels] are decoupled so that disturbances can be reduced or avoided".

The Examiner indicates that the limitation "said integrated circuit comprises means for generating a first communication channel operating at a first frequency; and means for generating a second communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency" is disclosed in Ono at col. 7, line 55 to col. 8 line 58 and Figs. 4 and 5 therein.

The section of Ono et al. indicated by the Examiner describes two separate methods/means for sending signals to the

communication circuit 27 for control information transfer and power supply, i.e., a lower transmission band and a higher transmission band, depending on the main information recording band or the reproduction band in the case of multiple-speed reproduction of the main information "so that the signals to not affect the recording and reproduction of the main information."

However, claim 1 (as well as claims 9, 12 and 23) specifically recites "means for generating a first communication channel operating at a first frequency; and means for generating, simultaneously with said first communication channel, a second communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency". Applicants submit that there is no disclosure in Ono et al. that the method/means for effecting the lower and higher transmission bands are used at the same time. In fact, as indicated in Ono et al. on page 2, lines 49-53, "Accordingly, one of the following two kinds of means are required depending on the band of the signals transmitted to the electromagnetic coupling means for control information and power supply (emphasis added)."

Hence, Applicants submit that Ono neither discloses or suggests "means for generating a first communication channel operating at a first frequency" and "means for generating, simultaneously with said first communication channel, a second

communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency".

While O'Connor discloses an optical disc having an integrated circuit including receiving means in the form of a light sensitive sensor, Applicants submit that O'Connor does not supply that which is missing from Ono et al., i.e., "means for generating a first communication channel operating at a first frequency" and "means for generating, simultaneously with said first communication channel, a second communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency".

The Blake et al. patent discloses a configuration control of mode coupling errors, and relates to fiber optic gyroscopes uses for rotation sensing. Blake et al. further discloses two different forms of coupling, to wit, an electromagnetic coupling and an optical coupling.

Claim 8 depends from claim 7/1, and claims "the first frequency is in an optical frequency range and the second frequency is in a radio frequency range".

First, the Examiner indicates that Blake et al. is "in the same field of endeavor" as Ono et al. and O'Connor.

Applicants urge that the Examiner is mistaken. In particular, both Ono et al. and O'Connor relate to circuitry on a compact disc and communicating signals to/from the circuitry. Blake

et al., on the other hand, has nothing to do with compact discs. Rather, Blake et al. concerns an interferometric fiber optic gyroscope. In particular, as indicated in Blake et al. at col. 11, lines 15-28:

> "The present invention provides error reducing configurations for an optical fiber rotation sensor in which rotation information in the form of phase differences between a pair of substantially coherent electromagnetic waves entering from a polarizer to propagate in opposite directions through a birefringent optical fiber coil to thereafter impinge on a photodetector after exiting through the polarizer. These configurations have optical path lengths therein and birefringent axes relationships therein determined with respect to the autocorrelation of the source chosen for the system. As a result, both amplitude related and intensity related phase errors due to polarization mode coupling can be eliminated or reduced economically."

Applicants submit that it is unclear how this could be used in Ono et al. and/or O'Connor in that the Blake et al. system is for measuring rotation, while such a measurement is not used at all in either Ono et al. or O'Connor.

Further, Applicants submit that Blake et al. does not supply that which is missing from Ono et al. and O'Connor, i.e., "means for generating a first communication channel operating at a first frequency" and "means for generating, simultaneously with said first communication channel, a second communication channel operating at a second frequency, the first frequency being substantially unequal to the second frequency".

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-3, 5-14, 16-19 and 21-24, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by
Edward W. Goodman, Reg. 28,613
Attorney
Tel.: 914-333-9611